

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/007948

International filing date (day/month/year)
16.07.2004

Priority date (day/month/year)
17.07.2003

International Patent Classification (IPC) or both national classification and IPC
F04B17/03, F16K31/12

Applicant
COOPER CAMERON CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized Officer

Gnüchtel, F

Telephone No. +49 89 2399-2012



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/007948

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/007948

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	6-9,13,14,16-32,34-36,38
	No: Claims	1-5,10-12,15,33,37
Inventive step (IS)	Yes: Claims	6-9,13,14,16-32,34-36,38
	No: Claims	1-5,10-12,15,33,37
Industrial applicability (IA)	Yes: Claims	1-38
	No: Claims	

2. Citations and explanations

see separate sheet

1. The present international application does not meet the requirements of the PCT in that the subject-matter of independent claim 1 is not new in the sense of Article 33(2) PCT.

The attention of the applicant is drawn to the PCT Guidelines for the International Preliminary Examination III-4.8, wherein it is explained that a claim worded "*pump device for the hydraulic actuation of a valve*" must be construed as meaning merely suitable for the hydraulic actuation of said valve".

This implicitly leads to the conclusion that a pump device which otherwise possesses all of the structural features specified in claim 1, and which would be suitable for the stated purpose without any modification whatsoever to enable it to be so used, has to be considered as coming within the scope of the claim. Hence, if a known pump device is structurally in a form in which it is in fact suitable for the stated hydraulic actuation of a valve, though it has never been described for that use, it would deprive the subject-matter of claim 1 of novelty.

In this context it is considered that the pump devices disclosed in documents **US-A-4,276,003** or **EP 0 433 649 A** would be in fact suitable for the use of hydraulic valve actuation. This would require no modification to any of the structural features of the pump devices disclosed in said documents, which use would directly lead to the subject-matter of independent claim 1.

In this case the pump devices of documents **US-A-4,276,003** or **EP 0 433 649 A** each consist of a piston-type pump, wherein the piston is movably connected via gears to an electrical motor, and wherein said piston follows a reciprocating movement inside a cylinder, such that a hydraulic fluid opens an suction non-return valve during an intake stroke and is being pumped in direction of and opens a discharge non-return valve during a discharge stroke of said piston.

Hence all the technical features of independent claim 1 are disclosed in said documents **US-A-4,276,003** or **EP 0 433 649 A** and therefore its subject-matter is not new (Article 33(2) PCT).

2. Further to the above, it is considered that the subject-matter of claim 1 lacks an inventive step in the sense of Article 33(3) PCT over a combination of teachings known from

documents **WO 01/65061 A** and **WO 95/08860A**.

Document **WO 01/65061 A** discloses a system, wherein a pump device for the hydraulic actuation of a valve which is used as a safety valve in a pipeline for the production of oil, e.g. in a petroleum well. The type of pump which is foreseen in said document to provide for the pressurization of the hydraulic actuation fluid which is directed towards said safety valve is not being specified. However, a person skilled in the art would readily foresee an actuator pump of the type being described in document **WO 95/08860A**, since it discloses an electrically driven piston type pump for use as a hydraulic actuator. In this way the skilled person would arrive at a subject-matter defined by claim 1 without having performed an inventive step.

3. Dependent claims 2-5, 10-12, 15, 33, or 37 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and/or inventive step, because these additional features also appear to be directly derivable from documents **US-A-4,276,003**, **EP 0 433 649 A** and/or **WO 95/08860A**.